



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON D.C. 20460**

**May 29, 2001**

**OFFICE OF  
THE ADMINISTRATOR  
SCIENCE ADVISORY BOARD**

**Note to the Reader:**

The attached draft is a "Sense of the Meeting Summary" from the EPA/SAB Workshop on "Understanding Public Values and Attitudes Related to Ecological Risk Management" on May 23-24, 2001. Unlike most Science Advisory Board (SAB) meetings, this Workshop met the requirements of 41 CFR 101-6.1004 and thus the provisions of the Federal Advisory Committee Act (P.L. 92-463) did not apply.

The Chair of the Workshop has asked for public comment on the draft "Sense of the Meeting Summary," especially comment from the panelists and members of the public who participated in the Workshop. Once the Chair has received comment through the process described below, the "Sense of the Meeting Summary" will be integrated into a report from the Workshop. The Workshop Report will include the "Research Plans" presented at the workshop, along with documentation of the agenda, panel members, and audience and panel discussion. The report will then be available to the interested public on the SAB website.

The Chair of the Workshop is soliciting comments on the draft by June 7, 2001. He is specifically requesting comments related to the following questions:

- (1) Are any statements or responses made in the draft unclear?
- (2) Are there any technical errors in the draft, which attempts to capture the range of major issues and action items suggested at the Workshop?

Commenters may provide their comments in writing to the Designated Federal Officer, Dr. Angela Nugent by close of business on June 7, 2001 via e-mail, fax or mail.

For further information or to respond to the questions above, please contact:

Angela Nugent  
EPA Science Advisory Board (1400A)  
US Environmental Protection Agency  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460-0001  
Phone: (202) 564-4562 Fax: (202) 501-0323  
E-Mail: [Nugent.Angela@epa.gov](mailto:Nugent.Angela@epa.gov)

**EPA/SAB Workshop on  
“Understanding Public Values and Attitudes Related to Ecological Risk  
Management”  
May 23 & 24, 2001  
Washington, DC**

Sense of the Meeting Summary

DRAFT – comments requested (until June 7)

[Note: The term “value” has multiple interpretations, which were identified, but not resolved, at the workshop. It will be used here in the most encompassing sense. Some interpretations will be more relevant in some contexts than others.]

**Environmental Science**

1. Values should be informed by solid environmental science, including an understanding of the associated uncertainties and controversies.
2. The research agenda for producing that science should be sensitive to public concerns, so that it produces results needed to inform public values.
3. The environmental sciences include the social sciences (e.g., for anticipating human demands on the environment and responses to interventions, for estimating economic impacts, for clarifying human dependence on environmental services and integrity).
4. Ensuring understanding requires properly designed and empirically evaluated communication programs.
5. That communication should be done proactively, so that authoritative information is in citizens’ hands as issues develop (and before misinformation can shape their responses).

**Social, Behavioral, and Economic Sciences**

1. Research into public values should meet the methodological standards of the appropriate social science disciplines (even if its subject matter may be too applied to merit publication in conventional academic journals).
2. The research should be problem, rather than discipline driven. That is likely to require multiple methods, using the strengths of different disciplines.
3. Research procedures should be empirically evaluated to ensure that questions and answers are interpreted as intended.

4. Researchers (here, as elsewhere) should be candid about the limits to their research. Claims of validity should be based on the basic research literatures and direct demonstrations (i.e., showing the reliability of measures, their sensitivity to relevant changes in circumstances and insensitivity to irrelevant changes).
5. The popularity of an approach may reflect successful marketing, as well as its fundamental soundness.

### **Policy Makers**

1. Need to specify the kind of research that they want, in conjunction with researchers able to clarify their situation and options. Specification issues include:
  - a. The relevant stakeholders, whose values should be elicited
  - b. The appropriate level of stakeholder comprehension level, regarding the relevant environmental science (e.g., their current level – in order to anticipate initial responses to a topic; a better informed level – in order to anticipate responses of knowledgeable citizens, as an issue develops)
  - c. The appropriate reactivity of measurement procedures (i.e., to what extent should stakeholders be exposed to alternative perspectives on the issue – of the sort that might arise through public debate or private reflection?)
  - d. Individualism of value focus (i.e., to what extent should the procedures encourage citizens to think of themselves as members of the community, rather than as individual consumers?)
  - e. Product versus process focus (i.e., to what extent do policy makers need quantitative estimates, as inputs to formal analyses, or a clarification of values, as inputs to social processes?)
2. Persuading citizens (either to change their values or to act on their values) needs to be distinguished from eliciting current existing values. Both goals can be legitimate, but require different methods and relationships with citizens.

### **Stakeholders**

1. Have a role to play in defining the problem being analyzed (lest their concerns be overlooked – leading to an erosion of trust and misallocation of research resources).
2. Are entitled to effective communication regarding the relevant environmental science and regulatory issues.
3. May need to be provided with multiple perspectives on the issues, of the sort that would arise with an intensive public debate.

4. May need multiple channels for receiving information and for providing input, suited to their habits, resources, and sophistication.

## **Research Development**

1. Policy makers need to provide core support, so that appropriate value elicitation methods are available, when managers need them.
2. Research planning should consider scalability, so that, once developed, methods can be used efficiently in other contexts, with an understanding of the design issues that such transfer faces. Four (non-exclusive) possibilities:
  - a. Intensive demonstration projects that can be copied in other contexts, at reduced expense. (Further development of the Tampa Bay Estuary example might merit examination.)
  - b. Modular method development, with pieces that can be assembled for new applications (e.g., ways to communicate environmental science, interactive programs for simulating the impacts of interventions, data analysis packages, guidelines/training for moderators)
  - c. Research into the generalizability of analytical results (recognizing that process-focused elicitation needs to be done in at each context, with the relevant individual stakeholders)
  - d. Independent, multiple perspective case studies of evaluation experiences, in order to show how they could be viewed and improved
3. Social scientists capable of adapting scientifically accepted methods to applied settings are relatively scarce. Three (non-exclusive) possibilities for expanding their ranks:
  - a. Additional graduate and post-doctoral training opportunities
  - b. Summer workshops for faculty from teaching institutions, interested in working in their local communities
  - c. Resources for adding social scientists to research groups where they are currently missing

## **Research Needs (partial list)**

1. Ways to communicate uncertainty
2. Ways to communicate the social processes of research (e.g., why and how scientists choose – and ignore – particular topics; how scientists identify and express disagreements)
3. Ways to communicate large-scale changes

4. Ways to help people to think about uncertain decisions (e.g., how to think about gambles being taken with nature, how to avoid paralysis through analysis)
5. Ways to provide alternative perspectives on issues, in a balanced way
6. Alternative roles for monetary outcomes in valuation, and their impacts on expressed valuations
7. How to frame ecological valuation questions, including existence value
8. How to prioritize information needs, in posing valuation questions (so that respondents are neither denied relevant facts nor drowned in irrelevant detail)
9. How to use behavioral experiments (either natural or designed) to reveal valuations (e.g., providing real-time information about energy consumption)
10. How to aggregate responsibly values provided by heterogeneous populations
11. How values change over time, both within and across cohorts (e.g., teens versus adults – of different ages, teens now and when they will be adults)